Table 4: Industrial HPCC Applications 14 to 18: Information Analysis—"DataMining"

Item	Application Area and Examples	Problem Comments	Machine and Software
14	Seismic and Environmental Data Analysis	• Parallel Computers already important but • No oil in New York State	• SIMD useful but MIMD might be necessary • HPF
15	Image Processing • Medical Instruments • EOS (mission to Planet Earth) • Defense Surveillance • Computer Vision	• Many commercial Applications of Defense Technology • Component of many "metaproblems" (Information Integration category) • e.g., Computer Vision in Robotics	Metacomputer Low Level Vision is SIMD and HPF Medium/High Level Vision is MIMD and HPF(+) Software Integration needs Asyncsoft and Database
16	Statistical Analysis Packages and Libraries	• Optimization • Histograms • See application area 4	HPF+ and especially C++ analogues is excellent for many libraries
17	Healthcare Fraud • Inefficiencies • Securities Fraud • Credit Card Fraud	Linkage Analysis of Data records for correlations and outlier detection	• SIMD or MIMD • Parallel Relational Database access plus application area 16
18	Market Segmentation • Mail Order • Retail • Banking	Sort and classify records to determine customer preference by region from city to even individual home	• Some cases are SIMD • Parallel Database plus application area 16